the average surface of a third-rate house and outbuildings at 650 superficial feet, this will give about 108 cubic feet, and suppose the garden or yard to afford half as much, this would give a total of 162 feet (or 1,012½ gallons) per hour: now it has been found by experiments lately made at the Sewers'-office, Soho-square, that this quantity of water will pass through fifty feet (the average length of a house drain) of four-inch pipes, laid at a dead level and without any head of water, in about 24 minutes; and although the relative capacity of the three-inch pipes is, compared with the four-inch, only as nine to sixteen, yet being laid with a fall of five inches in fifty feet and with a head of water of from one to three feet, they would carry off quite as much water as four-inch pipes laid on a dead level, and be amply sufficient to take the heaviest fall of storm water from two third-rate or three smaller houses, or the ordinary drainage from three times those numbers."

APPROPRIATION OF RAILWAY ARCHES.

It is a melancholy, but a certain truth, that in this immense metropolis a great amount of human suffering exists, for want of shelter during the inclement nights of winter. The police reports have shewn that several persons have even made a resting place of the dry trench in Hyde-park, and only a few days since an unfortunate man who was crippled by a railway accident, appeared in custody of the police, before a magistrate, for making a noise at the door of Lambeth workhouse, on being refused a night's lodging, having slept on the preceding evening on a heap of stones.

The parish of Lambeth spans a great part of the southern bank of the Thames, and contains a vast portion of the humble and miserable abodes of the indigent classes. At one period before the new Poor-law was exacted, there were five thousand out-door poor persons receiving weekly relief. In this very parish the recent extension of the South-Western Railway to the Waterloo-road, has occasioned the erection of two hundred and sixty-four dry arches. With the exception of the few appropriated to roadways, here are then the greater number of them of no apparent utility, merely openings to receive refuse filth, engender damp, and to create cutting drafts of air during the wintry blasts.

If these arches were floored, and boarded on the sides, they would form a refuge for the houseless to sufficient extent that no unfortunate person in London would want a dry covering in the inclement season. A merely raised flooring on each side, like those in the military guard-rooms, would afford the worn and weary a better repose than a heap of stones, or dry trenches in the parks. Other details would be readily suggested by the philanthropic; but even for baths and wash-houses for the poor, as well as soup-kitchens, these arches are well adapted. For the latter purpose, an enormous and constant supply of hot water could be obtained from the wasted heat of the extensive coke-ovens at Nine Elms, if boilers were erected there, from whence it could be conveyed in pipes,—and the heated pipes, by passing through those arches fitted up as receptacles for night refuge, would keep them healthily dry, and give genial warmth to the emaciated and distressed denizens.

If the pauperised parish of Lambeth cannot afford the cost of establishing a nightly home for their houseless poor, surely the various societies, who usually during the winter season display their humane care for fellow beings, might find the central position of these unemployed arches worthy of being permanently turned to some such purpose. Sufficient means would soon be found by a subscription, and the railway authorities would doubtless be glad to let the arches for this intention, upon easy terms.

IDLER IN LONDON.

ASSESSMENT OF RAILWAYS.—A correspondent informs us, that at the Rugby sessions just held, the London and North-Western company appealed successfully against a poor-rate in the parish of Church Lawford, levied at 1,800*l.* per mile per annum. It was argued by the company, and confirmed by the bench, that 750*l.* per mile per annum should be the sum assessed in future, and in other portions of the parish the rate was reduced from 1,500*l.* per mile, to 500*l.*

NOTES IN THE PROVINCES.

THE new church of All Saints, in Great Nelson-street, Liverpool, was consecrated on Friday week. It was founded in March last, on a plan by Mr. A. H. Holme, who superintended the erection. It is a plain structure, of red stone, in the Early English style, with accommodation for about 1,050 persons, 600 sittings free, and cost, it is said, about 4,000*l.* The front to Great Nelson-street comprises a tower, with spire about 120 feet high, and four entrance-doors, the two central with porches. In the centre of the elevation is a lofty gable, with lancet and circular windows. The pitch of the roof is said to be great, with large sky-lights visible from Great Homer-street; but interiorly it has been arranged to present the appearance of a clerestory and is regarded as a novelty. The gallery is supported by bronzed spiral pillars. The free benches have sloping backs and foot-boards and other conveniences. The brickwork was executed by Messrs. Duckworth; the masonry by Messrs. Nuttall and Hargraves: the woodwork by Mr. Burroughs; and the plumbing by Mr. Crellin. ——At Ancoates, says a Manchester paper, the mansion of Messrs. Kennedy, adjoining their mills, has been converted to the use of the women and young children, who, by the new Factories' Act, are excluded the mills at certain hours, during which they have generally been obliged to take their meals in the streets. The building has been well ventilated, and fitted up with benches, tables, large fires, gas-burners, washing and dressing places, &c.,—a worthy example to hundreds of those whose wealth is based on the like foundation.——The Christ Church schools at Hull were opened on Wednesday week. The style is Gothic, and ventilation and space have been considered. The rooms will accomodate 640 children. The architect was Mr. C. Brodrick. Ground and building cost about 1,400*l.*——The church at Edithweston, says a Lincolnshire paper, has been restored internally at the cost of Mr. and Mrs. Lucas, Sir Gilbert Heathcote, and others, with new open seating on a raised floor, walls stripped of whitewash, &c. A painting in fresco, 7 feet high, was uncovered between the clerestory windows. The restoration was executed by Mr. Collins, of Stamford.——A school of design is about to be formed at Leicester.——Plans and estimates for a lock-up, &c., at Solihull, have been made out, and a memorial for its erection presented to the magistrates at quarter sessions. ——The church at Kemp-town, says a Brighton paper, is now finished, and will be shortly consecrated. It has been erected by the Marquis of Bristol.

Miscellanea.

DISCOVERIES IN ST. GEORGE'S CHURCH, CANTERBURY.—In this ancient edifice, which has lately been cleared out for the purpose of re-pewing, some curious relics of early times have been brought to light. In the south wall, near the east end, were discovered three elaborately ornamented sedilia, or stone seats. One of these has apparently been used, since the Reformation, as a window, opening into the street, on which side of the wall is a square stone casement. The ancient iron hooks and the latchet hook of this window are as perfect as if only just placed there, so that they could not have been much used after they were fixed. Upon the east wall, and near to these seats was found, immediately concealed beneath a coating of lime, a piscina.

DOVER HARBOUR OF REFUGE.—According to the *Dover Chronicle*, the works here are conducted with industry. The timber framework of this great sea barrier has been carried out upwards of 260 feet from the point of shore at the old Cheeseman's-head; and by the aid of several diving-bells, helmets, &c., and an arrangement of travelling cranes, the ponderous stonework has been securely bedded in the chalk rock to a similar distance, and brought up almost to the level of high water, within eight months. This compact body of masonry is said to contain no less than 150,000 cubic feet of stone of large dimensions. There is a steam-engine, driving several sets of mortar and cement mills, and a crane for unloading vessels.

THE CENTRAL RAILWAY STATION, NEWCASTLE.—If we may judge from an account of this station, in the *Civil Engineer's Journal*, it is an important work. The following are some of the particulars that are given:—The façade, or principal front, is 600 feet in length. The style of the building is Roman; and the most striking feature in the design is the portico in the centre, 200 feet in length by 70 feet in width, flanked on each side by an arcade, the same length by 35 feet in width, allowing sufficient room for carriages to drive in at the end of each arcade, to turn, and go out at each end of the projecting part of the portico. The exterior front of the portico is composed of seven arches, each 14 feet in width by 32 feet in height, divided by coupled insulated Doric columns, 29 feet in height, elevated on a basement of 7½ feet, and supporting a broken entablature and attic of the same style. The arcades on each side are formed of arches, of the same width as the portico, divided by double inserted columns. These columns, with the key-stones of the arches, support a continued unbroken entablature, without an attic. The ends of the arcade terminate in front in a niche, having coupled insulated columns on each side, supporting an entablature and low attic. The entrance to the end of each arcade is by an arch 25 feet in width; and the arcades will be covered with groined ceilings of stone, with a circular light at each intersection. The front of the station-house facing the platform is concave, forming the segment of a circle of 300 feet radius. This form was rendered necessary by the junction of the various lines of railway at this point; and the elevation is of rubble-stone, from Prudhoe quarry, of a plain Roman character, the doors and windows having arched heads, with moulded imposts and archivolts. The shed is 236 yards long and 61 yards wide, covering an area of 14,426 yards, or about three acres. The roof is composed of iron, divided into three compartments, and supported by columns 33 feet apart, and 23 feet high from the platform to the springing of the roof. It is wholly of stone, and is from the designs of Mr. Dobson.

DEATH OF MR. ALDERMAN JOHNSON.—On Saturday morning Mr. Alderman Johnson expired at his residence, Millbank. The deceased alderman, who, in conjunction with his brother, succeeded to his father's business, was in early life extensively engaged as a paviour, and both also inherited a large fortune from their father, who made a fortunate speculation in a quarry in Devonshire, since known as the "Haytor Granite." He undertook the contract for the breakwater at Plymouth: this and other fortunate speculations tended to place the deceased alderman at the head of the stone trade. In 1845 he was elected to fill the civic chair, and during the year of his mayoralty distinguished it by a princely entertainment to scientific, literary, and artistical celebrities.

FLAXMAN'S WORKS.—Our readers know that a series of casts, from the works of Flaxman, have been presented to University College, Gower-street, by his niece Miss Denman. According to the *Athenæum*, the library just erected will be approached through a vestibule which, with its dome, forms so conspicuous a feature in the front view of the edifice. In this vestibule will be placed the casts in question. The well-known group of the Archangel Michael overcoming Satan (the first work executed in bronze for the Art-Union of London), will form the leading feature—standing immediately under the centre of the dome.

THE PNEUMATIC PILE-DRIVING PROCESS.—A hollow iron cylinder, 24 feet in length and 4½ in diameter, was lately sunk, for mining purposes, into dry sand on the sea shore, at Wheal Ramorth Mine, Perranzabuloe, Cornwall, by Dr. Potts's pneumatic pile-driving process. The sinking, on the occasion first recorded, went on at the rate of 24 inches in 50 minutes; but the process was suspended to allow scientific men to witness its further progress on a day appointed, when the descent was continued "at the rate of 3 inches a minute, accomplishing a descent of 2 feet 2 inches in 8 minutes, when it was feared that it would disappear altogether, and the work was abruptly suspended."

To learn more about PDF Compression and OCR go to ThePaperlessOffice.org